

U.S. FISH AND WILDLIFE SERVICE
SPECIES ASSESSMENT AND LISTING PRIORITY ASSIGNMENT FORM

SCIENTIFIC NAME: *Oreohelix peripherica wasatchensis*

COMMON NAME: Ogden Mountainsnail (or Ogden Deseret Mountainsnail or Ogden Rocky Mountainsnail)

LEAD REGION: Region 6

INFORMATION CURRENT AS OF: October 25, 2005

STATUS/ACTION:

☐ Species assessment - determined we do not have sufficient information on file to support a proposal to list the species and, therefore, it was not elevated to Candidate status

☐ New candidate

☒ Continuing candidate

☐ Non-petitioned

☒ Petitioned - Date petition received: May 11, 2004

☐ 90-day positive - FR date:

☐ 12-month warranted but precluded - FR date:

☐ Did the petition request a reclassification of a listed species?

FOR PETITIONED CANDIDATE SPECIES:

a) Is listing warranted (if yes, see summary of threats below)? yes

b) To date, has publication of a proposal to list been precluded by other higher priority listing actions? yes

c) If the answer to a. and b. is "yes", provide an explanation of why the action is precluded. We find that the immediate issuance of a proposed rule and timely promulgation of a final rule for this species has been, for the preceding 12 months, and continues to be, precluded by higher priority listing actions (including candidate species with lower LPNs). During the past 12 months, almost our entire national listing budget has been consumed by work on various listing actions to comply with court orders and court-approved settlement agreements, meeting statutory deadlines for petition findings or listing determinations, emergency listing evaluations and determinations, and essential litigation-related, administrative, and program management tasks. We will continue to monitor the status of this species as new information becomes available. This review will determine if a change in status is warranted, including the need to make prompt use of emergency listing procedures. For information on listing actions taken over the past 12 months, see the discussion of "Progress on Revising the Lists," in the current CNOR which can be viewed on our Internet website (<http://endangered.fws.gov/>).

☐ Listing priority change

Former LP:

New LP:

Date when the species first became a Candidate (as currently defined): 2/28/1996

___ Candidate removal: Former LPN: ___

___ A – Taxon is more abundant or widespread than previously believed or not subject to the degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status.

___ U – Taxon not subject to the degree of threats sufficient to warrant issuance of a proposed listing or continuance of candidate status due, in part or totally, to conservation efforts that remove or reduce the threats to the species.

___ F – Range is no longer a U.S. territory.

___ I – Insufficient information exists on biological vulnerability and threats to support listing.

___ M – Taxon mistakenly included in past notice of review.

___ N – Taxon does not meet the Act's definition of "species."

___ X – Taxon believed to be extinct.

ANIMAL/PLANT GROUP AND FAMILY: Snail-Oreohelcidae

HISTORICAL STATES/TERRITORIES/COUNTRIES OF OCCURRENCE: Utah

CURRENT STATES/COUNTIES/TERRITORIES/COUNTRIES OF OCCURRENCE: Utah,
Weber County

LAND OWNERSHIP: Land ownership is approximately 1/3 Forest Service, 1/3 Ogden City,
1/3 private ownership.

LEAD REGION CONTACT: Pat Mehlhop, (303) 236-4215

LEAD FIELD OFFICE CONTACT: Marianne Crawford, (801) 975-3330

BIOLOGICAL INFORMATION

Species Description

Species and populations of *Oreohelix* have been differentiated by size, proportions, color and shell sculpture. A great range of variation exists, perhaps due to subtle ecological differences (soil type, vegetation, elevation) between individual populations, grouped allied species, and subspecies (Chamberlain and Jones 1929).

Oreohelices are characterized by having an umbilicate shell, usually depressed and consisting of four to six tubular or carinate whorls. They are earthy in color with no or a thin periostracum. Typically they have two color bands but can vary from zero to many bands. The aperture is rounded or angular and toothless, the perisome is blunt or sharp and the columellar margins dilated. The sole is undivided, foot granulose, with a pair of dorsal furrows and usually a distinct genital groove. *Oreohelix peripherica* has a more open umbilicus, ornamented on the periphery with two narrow brown lines, the lower one being more decidedly marked, and provided with ribs, close, irregular and little in relief. It measures 9 millimeters (0.36 inch) height and 14 millimeters (.55 inch) diameter (Chamberlin and Jones 1929).

Taxonomy

The land snail *Oreohelix* genus consists of 41 species that are distributed throughout the western United States, southwest Canada and northern Mexico (Turgeon et.al. 1998). The majority of these species are endemic to the Great Basin and the Rocky Mountains Pilsbry (1939) made the last taxonomic revision of the genus *Oreohelix*. He recognized seven species that occur in Utah: *Oreohelix eurekensis*, *O. haydeni*, *O. parawanensis*, *O. peripherica*, *O. strigosa*, *O. subrudis*, and *O. yavapai*. Traditionally, four subspecies have been ascribed to *O. peripherica*: the type subspecies *O.p. peripherica*, and *O.p. wasatchensis*, *O.p. newcombi* and *O.p. weberina*. Clarke and Hovingh (1994) suggested that *newcombi* and *weberina* do not deserve subspecific status and are synonyms of the type race, *peripherica*. Recent and ongoing genetic studies indicate that *O.p. wasatchensis* does not form a distinct clade. It clusters with samples from other geographic locations and occurs throughout the phylogeny of the species (Perez-Losada 2004). The completion and publication of these studies is anticipated to clarify the taxonomy of this species and its subspecies. It should be complete in the coming year (Crandall, 2005 pers. comm.).

Habitat/Life History

Oreohelicids unlike most other land snails have been able to adapt to the climate in the Rocky Mountain states and the mountainous areas of Utah (Ports 1996). They utilize many microhabitats, including maple litter, oak litter, wood, bark, dirt, limestone, quartz, sagebrush, and grasses (Meadows 2000).

Historical Range/Distribution

Oreohelix peripherica wasatchensis was first described by W.G. Binney in 1886 from an area near the mouth of Ogden Canyon, Utah. Neither Binney (1886) or a subsequent taxonomic collection made by Henderson and Daniels (1917) report any data on abundance though both mention the limited distribution of the species.

Current Range/Distribution

Approximately 13 colonies of *Oreohelix peripherica* have been documented from Utah. Populations are known in portions of Box Elder, Cache, and Weber Counties (Chamberlin and Jones 1929). The Ogden mountainsnail, *O. p. wasatchensis*, is known from a single population near mouth of Ogden Canyon adjacent to the City of Ogden, Weber County, Utah. The subspecies' total occupied habitat is an area approximating 100 meters (328 feet) wide by 1 kilometer (0.6 mile) long.

Population Estimates/Status

Population estimates conducted at the site have produced varied results. Clarke (1993) estimated a population size of 10,000 to 100,000 living snails. This was done in a non-random sampling of a small area. Meadows (2000) conducted random samples of the maple groves and open patches in 1997 and 1998. They estimated there were 9,880 snails in 1997 and 11,070 in 1998. Sampling was repeated by Meadows in 1999 and 2000, these estimates showed a population of 9,520 in August of 1999 and 18,724 in May of 2000. It is not apparent whether these estimates represent changes in actual population numbers or seasonal variation (Meadows 2001).

THREATS

A. The Present or Threatened Destruction, Modification, or Curtailment of Its Habitat or Range.

The population at Rainbow Garden at the mouth of Ogden canyon is at the edge of an expanding residential area. Encroachment of the residential area increases recreational and foot traffic to the fragile snail habitat. The area around the snail's habitat receives heavy recreational use that disrupts microhabitats (Meadows 2002). Human-caused fires from camp fires, fireworks and carelessness are known to occur with moderate frequency in in forested areas close to the residential areas (Clark, 1993). Fire and/or fire retardant would likely destroy the colony (Blatt et. al. undated). Electric power transmission and water lines are directly adjacent to the population. Access to these utilities requires roads which provide additional access to recreational vehicles. Roads and trails are a significant barrier to dispersal and interconnection among subpopulations (Meadows 2002).

B. Overutilization for Commercial, Recreational, Scientific, or Educational Purposes.

None known.

C. Disease or Predation.

None known.

D. The Inadequacy of Existing Regulatory Mechanisms.

The Utah Division of Wildlife Resources' (UDWR) has management responsibility for snails, including *O. peripherica* and its recognized subspecies. The subspecies *O.p. wasatchensis* is on the UDWR's sensitive species list. No legal protection is afforded by being on the list, but it is hoped that conservation actions will be implemented for taxa on the list. There is no State or Federal law protecting the species. The habitat for *O.p. wasatchensis* is on the boundary of the Wasatch-Cache National Forest. The portion of the population on the National Forest receives administrative protection from the Forest Service.

E. Other Natural or Manmade Factors Affecting Its Continued Existence.

Because the Rainbow Gardens site has an extremely small and restricted population, it is vulnerable to any detrimental stochastic event which may destroy the habitat or population, such as drought or catastrophic fire to the maple forest comprising its habitat.

CONSERVATION MEASURES PLANNED OR IMPLEMENTED

Meetings with Federal and State interests have been held to determine the extent of information available and to determine how to proceed with protective measures. Genetic studies are being conducted to determine the uniqueness of the subspecies.

SUMMARY OF THREATS

The restricted range of this snail, its proximity to an expanding residential area, and impacts from relatively heavy recreational use, renders it vulnerable to extirpation from stochastic or human-caused events.

RECOMMENDED CONSERVATION MEASURES

LISTING PRIORITY

THREAT			
MAGNITUDE	IMMEDIACY	TAXONOMY	PRIORITY
High	Imminent	Monotypic genus	1
		Species	2
		Subspecies/population	3
	Non-imminent	Monotypic genus	4
		Species	5
		Subspecies/population	6
Moderate to Low	Imminent	Monotypic genus	7
		Species	8
		Subspecies/population	9*
	Non-imminent	Monotypic genus	10
		Species	11
		Subspecies/population	12

RATIONALE FOR LISTING PRIORITY NUMBER

Magnitude: Moderate.

The subspecies is highly restricted, and thus vulnerable to stochastic events. Forests adjacent to the nearby residential areas are at higher risk of human-caused fires. The snail's limited habitat occurs on private, municipal, and Forest Service lands.

Imminence: Imminent.

The species is intrinsically vulnerable primarily because it is a narrow endemic. The site is close to an expanding residential area.

RATIONALE FOR CHANGE IN LISTING PRIORITY NUMBER

YES Have you promptly reviewed all of the information received regarding the species for the purpose of determining whether emergency listing is needed?

Is Emergency Listing Warranted? No. We have no information that indicates that the threats to the taxon have increased or that the population has declined substantially in recent years.

DESCRIPTION OF MONITORING

Forest Service, State, and Fish and Wildlife biologists make occasional site visits to the habitat of *O.p.wasatchensis*.

COORDINATION WITH STATES

Indicate which State(s) (within the range of the species) provided information or comments on the species or latest species assessment: Utah

Indicate which State(s) did not provide any information or comments: None

LITERATURE CITED

- Blatt, S., Chase, P., and McCabe, D. Undated. Draft Conservation Strategy for the Ogden Rocky Mountain snail (*Oreohelix periperica wasatchensis*). USDA Forest Service. Unpublished.
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- Clarke, A. 1993. Final Report: Status Survey of Fifteen Species and Subspecies of Aquatic and Terrestrial Mollusks from Utah, Colorado, and Montana. U.S. Fish and Wildlife Service Contract No. 14-16-0006-91-046 (Revised).
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Mikkelsen, R.J. Neves, C.F.E. Roper, G. Rosenberg, B. Roth, A. Scheltema, F.G. Thompson, M. Vecchione, and J.E. Williams. 1998. Common and scientific names of aquatic invertebrates from the United States and Canada: mollusks, 2nd edition. American Fisheries Soc. Spec. Publ. 26: ix + 526pp.

APPROVAL/CONCURRENCE: Lead Regions must obtain written concurrence from all other Regions within the range of the species before recommending changes, including elevations or removals from candidate status and listing priority changes; the Regional Director must approve all such recommendations. The Director must concur on all resubmitted 12-month petition findings, additions or removal of species from candidate status, and listing priority changes.

Approve: Sharon Rose
Acting Regional Director, Fish and Wildlife Service

11/4/2005
Date



Concur: _____
Director, Fish and Wildlife Service

August 23, 2006
Date

Do not concur: _____
Director, Fish and Wildlife Service

Date